Chapter 7 ISM Automation System

7-1. Scope

This chapter provides an overview of the ISM automation system principal functions, systems administrative tasks, system change management processes, functional description, data element dictionary, and work order status codes which aid in program management.

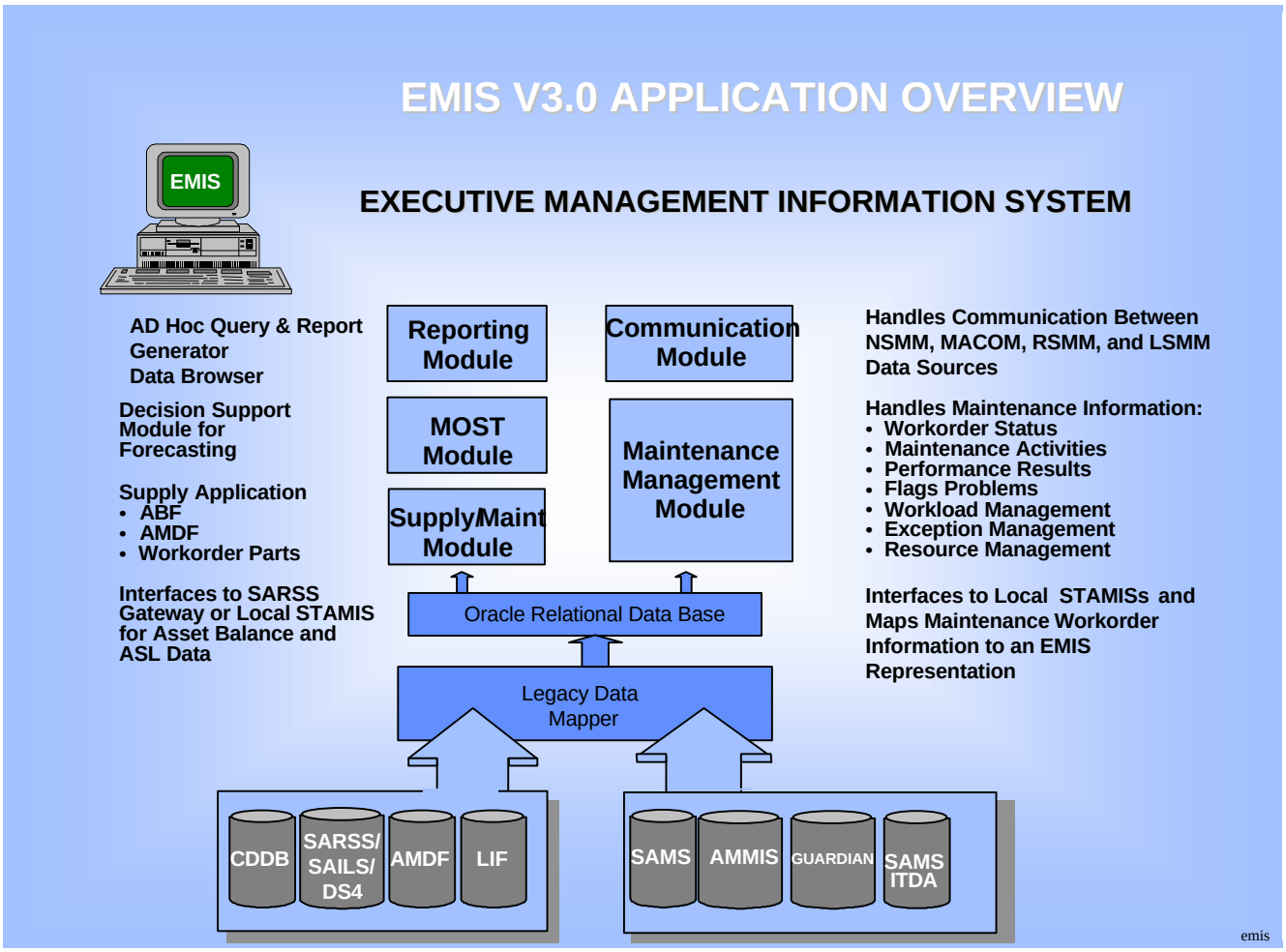

Figure 7-1 EMIS Application Overview

7-2. References

For a more detailed description of system functions, see the current Users Manual, Version 3.0 (JUN 97).

7-3. General

The ISM automation system receives and formats data from various Standard Army Management Information Systems (STAMIS) and legacy systems to provide National, Regional, and Local Sustainment Maintenance Managers with an automated tool that will aid in program management and assist in making better informed decisions. The system provides an interim capability until full ISM automated functionality is incorporated in an objective STAMIS.

7-4. System Description

a. Automated Interface Requirements - The objective of ISM automation system is to provide high level management tools that aid in planning, perform trend analysis, reduce costs, support exception management, and increase the effectiveness and efficiency of maintenance operations above the DS level. This is accomplished by integrating logistics data files to provide horizontal visibility across various maintenance and supply systems. Much of the data resides on non-integrated legacy systems that cannot depict summary or historical information. Integration is accomplished by daily file extracts from the systems of record (SAMS-1, AMMMIS, SAMS-ITDA, SARSS, SAILS, DS4, etc.) The system is designed to provide nightly updates of maintenance information and execution exception messages between RSMMs. The ISM automation system provides connectivity between NSMM, RSMM/TSMM, LSMM, AMMs, MACOMs, and the SARSS Gateway using the Defense Data Network (DDN) and standard X.25 protocols. It provides a Graphical User Interface (GUI) consisting of pull down windows, menus, and user applications.

b. System Design and Hardware - The ISM automation system uses a UNIX reduced instruction set chip architecture hardware platform running the SOLARIS 2.5.1 Operating System. Hardware configuration currently consists of a stand-alone Sun Ultra 2 Unix station with 512 MB RAM and the following ancillary equipment: CD ROM drive, 14 GB hard drive (internal and external), 8mm tape backup unit, an un-interruptible power supply, a high resolution 20" color monitor. At the LSM sites, the hardware suite includes a Pentium personal computer with 128 MB RAM, a CD ROM drive, 3.5" floppy drive, an Ethernet card, a 17" non-interlaced monitor, a 2 MB Video RAM graphics card, Ethernet cards, and a 4 GB hard drive.

c. System Communications - The ISM automation system communications architecture requires a distributed wide area network (WAN) to provide 24-hour communications between all nodes in the system. Communication is required among the Regional and Local ISM nodes in each of six regions, among the Regional and National nodes, and among ISM nodes at MACOMs and all other ISM nodes. ISM automation system requires DDN connectivity to support data transfers, E-mail, remote system administration, and end-user support. Connectivity from the ISM automation system Local Area Network (LAN) to the Directorate of Information Management (DOIM) is via a leased line circuit with the speed and bandwidth set to match the external gateway capacity available at the DOIM. Each ISM automation system site utilizes an Ethernet 802.3 based network segment, using 10Base2 cabling to interconnect between the ISM automation system workstation and PC based systems for remote access and data transfers.

7-5. System Functions

For a more detailed description of system functions, see the current Users Manual, Version 3.0 (JUN 97).

a. Maintenance Optimization Support Tool (MOST) and Requirement Determination - The Maintenance Optimization Support Tool (MOST) Module uses a modeling technique called AMPL to model and search for the optimum solution to the work load distribution problem optimizing capability and capacity considering cost, transportation and criticality. Using templates and EMIS input, the regional requisition objective (RO) can be determined.

b. Transportation Tracking - The LSMM operations cell establishes an evacuation case for all inter LSMM repairs. The evacuation case provides the shipping LSMM and the repairing LSMM the ability to maintain current visibility of the status of the item that has been evacuated and data needed to track the transportation. This same information is provided to all sustainment managers as the EVAC file. The report generator provides visibility of the EVAC file and can be analyzed by the manager to provide assessment and required reports.

c. Production Monitoring - Using a combination of the closed work order, PP& C files, the RSMM and LSMM operations cells are able to monitor the current and historical performance and production for the fiscal year to date. Higher-level sustainment maintenance managers have PP&C data for similar analysis. These files can be filtered and sorted to provide the manager with the specific information.

d. Work load Management - Exception management for aged jobs, work orders, parts and performance standards focus the LSMM effort on work load management. Within the LSMM application, the manager can display the current backlog (in days) for each of the work centers, as well as all of the open work orders. When more than one work center has the capability to repair the same item, the managers are able to cross-level work load to balance the backlog.

e. National Work load Program (NWP) - The NWP is a web-based decision support tool that allows NSMM/RSMM/LSMM users to track repairs of national level assets at the local level. It is designed to automate visibility of national level assets being repaired at ISM maintenance activities. It enables Item Managers to anticipate the availability of stocks coming out of repair programs and automates the preparation of release and shipping documents.

f. Asset Visibility - The sustainment maintenance manager's applications provide a roll-up of all of the supply support activities for each of the installations. The report generator ABF file provides the managers with the ability to analyze assets. This file can be filtered and sorted to provide the manager with the specific information that is required.

g. Special Repair Activity (SRA) - The EMIS SRA database is an automated multi-user maintenance database for maintenance activities requesting repair authorization above the general support level. It is designed to assure maximum uniformity in accounting, reporting, repairing, managing and controlling materiel, supplies and equipment required by repair activities and GS maintenance companies for support to the Army supply system. Using a combination of the SRA active, pending and historical files, the RSMM and LSMM operational cells are able to monitor current and historical management information. The files can be filtered and sorted to provide a wide variety of information.

7-6. System Administrator Tasks

a. Recurring Daily Tasks - Recurring daily tasks are centered on the ISM automation systems. Automatic process management is generally reported by the system. At various times during the night, files are transferred to and from the ISM automation system. An E-mail message is sent to the activity that executed the CRON process. These E-mail files are used to keep all systems updated and need to be checked daily to ensure they were completed successfully. Data backup and Maintenance Activity archives are performed daily. These processes are executed by a CRON. The daily backup is a complete backup of the activities data files to an 8mm-tape stream. A different tape is used for each day of the week. The Maintenance Activity archive is created by a CRON and placed in the Maintenance activity ARCHIVE directory. Both processes send E-mail to that activity indicating they executed the procedure. The systems administrator (SA), to insure that data was transferred to and from the ISM activities, will perform a daily check of all user jobs on systems where the user job listing is not received by e-mail.

b. Recurring Monthly Tasks - Recurring monthly tasks support the ISM automation systems. The SA will include copying all Maintenance Activities daily backups to a separate archive. Year-end closeout procedures are determined on a year to year basis in accordance with current regulations and local policy. The RSMM will publish regional COE guidance and LSMMs/AMMs will perform closeout in accordance with local policy.

7-7. System Change Requests

Requests for changes to the system will no longer be accepted by PM-EMIS. The baseline has been frozen, completing development under the EMIS program and has been taken up by the follow-on program, PM-ILOGS under GCSS-A. However, SCRs should be submitted to HQ AMC for review and future consideration.

7-8. ISM Automation Functional Description

a. Maintenance Activity Work Orders Presentation - Work orders from the MA maintenance management system are stratified for display. Work orders contain essential data to identify the item on work order, define the work process, and the age of the work order. Upper level window for detailed data retrieval. There are no input files. Information may be viewed on demand.

b. Installation Work Order Roll-up Presentation - Maintenance activities may be stratified for display. Work orders contain essential data to identify the item on work order, define the work process, and the age of the work order. The system has an upper level window for maintenance management data retrieval. Input files are not required.

c. Display Open Work Orders Listing - List open work orders from either the installation rollup or maintenance activity files. Work orders contain essential data to identify the item on work order, define the work process, and the age of the work order. The count of work orders in the open work order list is displayed with the list. The work order data for listed work orders may be printed by

print request. Input files are the work orders file. Information may be viewed daily on demand. The unique work order number directly links displayed work orders to work order detail.

d. Display Closed Work Order Listing - List closed work orders from either the installation rollup or maintenance activity files. Work orders will contain essential data to identify the item on work order, define the work process, and the age of the work order. The count of work orders in the closed work order list is displayed with the list. The work order data for listed work orders may be printed by print request. Input files are the work orders file. Information may be retrieved daily on demand. The unique work order number directly links displayed work orders to work order detail.

e. Display Deferred Work Orders Listing - List deferred work orders from either the installation rollup or maintenance activity files. Work orders contain essential data to identify the item on work order, define the work process, and the age of the work order. The count of work orders in the deferred work order list is displayed with the list. The work order data for listed work orders may be printed by print request. Input files are the work order files. Information may be retrieved on demand. The unique work order number directly links displayed work orders to work order detail.

f. Display Waiting Pickup Work Order Listing - List closed work orders from either the installation rollup or maintenance activity files. Work orders contain essential data to identify the item on work order, define the work process, and the age of the work order. The count of work orders in the waiting pickup work order list is displayed with the list. The work order data for listed work orders may be printed by print request. Input files are the work order files. Input files are the working files. Information may be retrieved on demand. The unique work order number directly links displayed work orders to work order detail.

g. Search Work Order List by National Item Identification Number (NIIN) - Using an operator selected NIIN, search the work order listing to isolate and display all work orders for the selected NIIN. Display a count of these work orders. The work order data for listed work orders may be printed by print request. Input files are the Work Orders Files and the NIIN Temp File. Information may be retrieved daily on demand. The unique work order number directly links displayed work orders to work order detail.

h. Search Work Order List by Unique Work Order Number (WON) - Using an operator selected WON, search the work order listing to isolate, link, and display a work order detail screen for the selected WON. The work order detail screen expands the initial work order data to reflect all essential work order information. Input files are the Work Orders File and the WON Temp File. Information may be retrieved on demand.

i. Display Evacuation Case Listing for Center of Excellence (COE) Work Orders - List evacuation cases initiated by the local sustainment maintenance manager. The evacuation case contains essential data to identify the item on evacuation, the destination (COE), and define the work process. The count of cases on the list is displayed with the list. The evacuation case data may be printed by print request. Input Files are the Work Orders File and the EVAC File. Information may be retrieved daily on demand. Displayed evacuation cases are directly linked to the evacuation case detail by the locally assigned, unique case number.

j. Search Evacuation Cases by National Item Identification Number (NIIN) - Using an operator selected NIIN, search the evacuation case listing to isolate and display all cases for the selected NIIN. Display a count of these cases. The case data for listed cases may be printed by print request. Input files are the EVAC File and the NIIN Temp File. Information may be retrieved on demand. Displayed cases are directly linked to the evacuation case detail by the locally assigned, unique case number.

k. Search Evacuation Cases by Case Number - Using an operator selected case number, search the evacuation case listing to isolate and display the detailed case data for the selected case. The case data for listed case may be printed by print request. Input Files are the EVAC File and the Case Number Temp File. Information may be retrieved on demand.

l. Search Evacuation Cases by Center of Excellence (COE) Work Order Number (WON) - Using an operator selected COE work order number, search the evacuation case listing to isolate and display the case data for the associated evacuation case. Display the count of these cases. The case data for listed cases may be printed by print request. Input files are the EVAC File and the WON Temp File. Information may be retrieved on demand. Displayed cases are directly linked to the evacuation case detail by the locally assigned, unique case number.

m. Display RX Listing - Provide direct access to the installation RX listing. This list is the local RX list and includes the COE lines approved for regional repairs. This listing must be locally developed and coordinated with the installation supply manager. The listing will contain sufficient data to identify each item, by prime stock number (NIIN), managed by the RX activity and supporting maintenance information. Input files are the RX List File and the AMDF File. Information may be retrieved on demand. Displayed items will be linked to the National Stock (AMDF) Number (NSN) detail for the item listed by the NIIN.

n. Display Work Center (WC) Status - Provide direct access to the list of local maintenance activity work centers. The list will contain data to identify the maintenance activity work centers, resource allocation, and count of centers. The list may be printed by print request. Input file is the WC File. Information may be retrieved on demand. Displayed work centers will be linked to the detailed work center data by the maintenance activity and WC names

o. Age Exception Identification - Provide a list of open work that exceeds the age exception parameter. The listing will contain data to identify the work order, the item on work order, define the work process, and the age of the work order. The count of work orders in the age exception list is displayed with the list. The work order data for listed work orders may be printed by print request. Set the age parameter to a specified number of days the work order has been open, from the date of receipt to the current date. Input files are the Work Orders File and the Age Parameter Temp File. Information may be retrieved daily on demand. The unique WON directly links displayed work orders to work order detail.

p. Parts Exception Identification - Provide a list of open work that exceeds the parts delivery exception parameter. The listing will contain data to identify the work order, the item on work order, define the work process, and the age of the work order. The count of work orders in the parts exception list is displayed with the list. The work order data or listed work orders may be printed by print request. Set the part delivery parameter to a specified factor of the installation six-month average order-ship-time (OST) for all priority requisitions. The parameter will multiply the OST by this factor to determine the number of days to be added to the requisition Julian date to compute acceptable estimated shipment date for parts ordered for work order repair. Input files are the Work Orders File, Parts File and the Parts Parameter Temp File. Information may be retrieved daily on demand. The unique WON directly links displayed work orders to work order detail

q. Performance Standard Exception Identification - Provide a list of open work that exceeds the performance standards exception parameter. The listing will contain data to identify the work order, the item on work order, define the work process, and the age of the work order. The count of work orders in the performance standards exception list is displayed with the list. The work order data for listed work orders may be printed by print request. Set the performance standards parameters to a specified range of acceptable performance for work order direct labor man-hours expended, work order repair parts cost, and/or work order turn around. The parameters will be set by multiplying the performance standard, maintained by NIIN, for the item under repair by the upper and lower range factor to establish the range of acceptable performance. Work orders the current performance outside the range for any performance measure will be listed. Input files are the Work Orders File and the Standards File, Standards Parameter Temp File. Information may be retrieved daily on demand. The unique WON directly links displayed work orders to work order detail

r. Critical Work Order Presentation - Display a list of all work that has been identified as critical for recurring manager review and action. These work orders are routinely identified by the LSMM. Work orders will contain essential data to identify the item on work order, define the work process, and the age of the work order. The count of work orders in the deferred work order list is displayed with the list. The work order data for listed work orders may be printed by print request. Input files are the Work Orders File and the Critical Rep File. Information may be retrieved daily on demand. The unique WON directly links displayed work orders to work order detail.

s. Organization Resource Identification - List the sustainment maintenance activities assigned to the LSMM. The list will identify the maintenance activities using a clear name and the standard unit identification codes along with an up to date point of contract for the activity. The count of organizations on the list will be displayed with the list. Input file is from the MA File. Information may be retrieved daily on demand. Displayed maintenance activities will be linked to the maintenance activity detailed information by the maintenance activity identification.

t. Maintenance Activity Detail Presentation - Display the detailed information on a maintenance activity. Details will include complete identification in both clear and coded format, the authorized level of maintenance performed, authorized man-hours,

allocated cost rates, and internal organization of Work Centers (WC). The maintenance activity data may be printed by print request. Input Files are the MA File and the WC File. Information may be retrieved on demand. Displayed WCs will be linked to expanded WC detail information by the WC identification.

u. Work Centers (WCs) Detail Presentation - Display WCs information on WC identification, resources, work orders, and shop code mapping. Select open work orders for display within the WC detail presentation. The count of work orders on the list will be displayed with the list. Input files are the WC File and the Shop Codes File. Information may be retrieved daily on demand. The work order number will link displayed work orders to the work order detail information

v. Work Centers (WCs) Capability Identification and Control - Maintain and display a listing of items that a WC is capable of repairing. A work order that is completed with a repair constitutes capability and is presented on this listing. The items are identified by essential master data, including item identification number, name, supply class, and maintenance codes. The count of items on the list will be displayed with the list. The capability list data may be printed by print request. Input files are the Control File and the AMDF File. Information may be retrieved daily on demand. Items displayed in the list are linked to item detail by the NIIN.

w. Backlog Presentation - For each WC, display the backlog in days. Compute WC backlog based on open work orders by NIIN, performance standards, and available man-hours. Reference backlog definition in AR 750-1 Appendix C, paragraph C-7. Input files are the Backlog File. Information may be retrieved daily on demand.

x. Reparable Performance Presentation - Stratify for display reparable management listings for the sustainment maintenance manager. Lists will be maintained up to date for display. Separate lists will identify reparable items managed locally, regionally, and items repaired for the level. Additionally, the user will routinely identify reparable items for intensive management. These will be displayed as a separate list for quick reference. Finally, a listing of regional COE items will also be available as a separate list. Reparable lists will contain essential data to identify the item, the supply class, and maintenance codes. This is considered an upper level window for reparable management data retrieval. There are no input files. Information may be retrieved on demand.

y. Display Local Reparable List - Listing of all reparable items that have been repaired by the local sustainment maintenance activity(s). The list identifies the item, supply class, and maintenance codes. The count of items on the list will be displayed with the list. The local reparable list data may be printed by print request. Input files are the Local Rep File and the AMDF File. Information may be retrieved on demand. The items on the list are linked to National stock (AMDF) detail by the NIIN.

z. Display Regional Reparable List - Listing of all reparable items that have been repaired by the combined local sustainment maintenance activities of the region. The list identifies the item, supply class, and maintenance codes. The regional reparable list data may be printed by print request. Input files are the Regional Rep File and the AMDF File. Information may be retrieved on demand. The items on the list are linked to National stock (AMDF) detail by the NIIN.

aa. Display National Reparable List - List of all reparable items that have been repaired by the local sustainment maintenance activity(s) of the region for a national level program. The list identifies the item, supply class, and maintenance codes. The count of items on the list will be displayed with the list. The national reparable list data may be printed by print request. Input files are the National Rep File and the AMDF File. The national PRONs are rolled up on a daily basis. The items on the list are linked to National stock (AMDF) detail by the NIIN.

bb. Display Critical Reparable List - List of all reparable items which have been identified by the LSMM for continuous /immediate review. The list identifies the item, supply class, and maintenance codes. The count of items on the list will be displayed with the list. The critical reparable list data may be printed by print request. Input files are the Critical Rep File and the AMDF File. Information may be retrieved on demand. The items on the list are linked to National stock (AMDF) detail by the NIIN.

cc. Display Center of Excellence (COE) Reparable List - List of all reparable items that have been approved for regional COE repair. The list identifies the item, supply class, and maintenance codes. The count of items on the list will be displayed with the list. The COE Reparable list data may be printed by print request. Input files are the COE File and the AMDF File. Information may be retrieved on demand. The items on the list are linked to National stock (AMDF) detail by the NIIN.

dd. Display Performance Standards - Using the reparable items list, generate a performance standards report to reflect the item identification, repairing activity, average repair cost for parts and unit repair, and average man-hours. The count of items on the list will be displayed with the list. The COE Reparable list data may be printed by print request. Compute repair averages using closed work orders, adjusting for data compatibility and acceptability. Input files are the Rep File (local, regional, national, critical, and COE) and the Standards File Frequency Monthly On Demand. The items listed are linked to maintenance activity detailed standards by the maintenance activity identification and NIIN.

ee. Display Planning, Production, and Control (PP&C) Monthly Report - Using any reparable item list, generate a production report to compare planned and actual production. The PP&C report will display values for annual planned quantity, actual production quantities, the percentage of plan produced, and scheduled work load for the current quarter in monthly increments. This is a stand-alone report that supports production analysis. The count of items on the list will be displayed with the list. The PP&C Monthly Report data may be printed by print request. Compute year to date production from closed work orders with a quantity repaired for comparison to the work load directed to the maintenance activity. Input files are the Rep File (local, regional, national, critical and COE), Plan File. Information may be retrieved monthly on demand.

ff. Display Work load Allocation from the Work load Directive - Using any reparable item list, generate a work load allocation report. The report will identify the items, maintenance activity, and planned annual quantity. Input file is the Plan File. Information may be retrieved on demand. Work load items are linked to the work load directive and monthly production summary by maintenance activity and NIIN.

gg. Display Availability Balance for Reparable Items - Using any reparable item list, generate the availability balances for the local SSAs. Availability balances will reflect the current stock position with serviceable, unserviceable, due in, due out, and requisitioning objectives by SSA. Input files are the Rep File (local, regional, national, critical, and COE) and ABF File. Information may be retrieved daily on demand. Items listed are directly linked to the National stock (AMDF) detail by the NIIN.

hh. Availability Balance File (ABF) Presentation - Stratify for display the availability balance for the SSAs of the installation. ABF contains essential data to identify the SSA, to identify the item available, and to reflect the current stock position with serviceable, unserviceable, due in, due out, and requisitioning objective. From the list of installation SSAs, select the desired SSA for display of its ABF. If all ABFs are desired, a complete installation ABF will be available for selection. Input File is the information is rolled up daily the ABF File Information is a daily rollup. The items from the ABF will be linked to the national stock (AMDF) detail by the NIIN.

ii. Search Availability Balance File (ABF) by National Item Identification Number (NIIN) - Using an operator selected NIIN, search the ABF to isolate and display all stock positions for the selected NIIN. Display a count of these stock balances. The stock data for the item may be printed by print request. Input files are the ABF File and NIIN Temp File. Information may be retrieved on demand. Displayed item is directly linked to national stock (AMDF) detail by the NIIN.

jj. Search Availability Balance File (ABF) by Supply Support Activity (SSA) - Using an operator selected SSA, display the ABF stock positions for the selected SSA. Display a count of the stock balance lines. The stock data for the SSA may be printed by print request. Input files are the ABF File and SSA Temp File. Information may be retrieved on demand. Displayed items are directly linked to national stock (AMDF) detail by the NIIN.

kk. Display Work Order Detail - Given a work order identification (WON), display the essential elements of the work order identification and ownership, priority, item description, work process and history, resource data, and related performance data. The work order details for the WON may be printed by print request. Compute and display the work order age from receipt date to current date. Apply the labor cost rates to the expended direct labor hours to calcite and display the "full" cost of labor by direct, indirect, and GAE. Compute and display the % of item purchase cost to the accumulated total repair cost including the "full" cost of labor. Using the established maintenance exception parameters, identify applicable exceptions for the work order. Input files are the Work Orders File, MA File, Critical WO File, and Parameter Temp Files (age, parts, and standards). Information may be retrieved on demand. Several links facilitate further analysis of work orders and related maintenance activity. These include links to the national stock (AMDF) detail by work order NIIN, maintenance organization by WC and maintenance activity, work order parts records, and item performance standards.

ll. Tag Critical Work Orders - Given a work order identification (WON), tag the work order as critical. The local sustainment manager, as desired for quick reference and analysis, will set this flag. Input files are the Work Order File and the Critical WO File. Information may be retrieved on demand.

mm. Display Work Order Parts - From the work order, establish a list of parts requisitioned for consumption during the repair. The parts record will identify the requisition, quantity, source of supply, current supply status, and estimated delivery date. Display a count of these parts requests. The parts data for the work order may be printed by print request. Using the parts exception parameter established by the local sustainment manager, identify the requisition(s) which exceed acceptable delivery dates. The input file is the Part File. Information may be retrieved daily on demand. The work order parts listing is linked to the list of exception parts. All displayed items are directly linked to national stock (AMDF) detail by the NIIN.

nn. Display Work Order Exception Parts - Given the parts exception parameter established by the local sustainment manager, display the requisition(s) which exceed acceptable delivery dates. Display a count of these exception parts requests. These exception parts records may be printed by print request. Input files are the Part File and Parts Parameter Temp File. Information may be retrieved on demand. Displayed items are directly linked to national stock (AMDF) detail by the NIIN.

oo. Display National Stock Number Item Details - Given a NIIN, display critical stock information including: identification, related maintenance management codes and work order(s), source of supply, class and item description, substitute items, and associated WCs where the item is repaired, if reparable. The item data for the national stock item may be printed by print request. Count and display the number of work orders for the selected NIIN. Input files are the AMDF File and Critical Rep File, Control File. Information may be retrieved daily on demand. Several links facilitate further analysis of stock items and related maintenance activity. These include links to the prime stock item, open work orders, open evacuation cases for COE items, item performance standards, associated maintenance plan, supply documents for the item, and availability balance status.

pp. Tag Critical National Stock Items - Given a national stock item (NIIN), tag the item as critical. The local sustainment manager, as desired for quick reference and analysis, will set this flag. The input file is the Critical Rep File. Information may be retrieved on demand.

qq. Display Open Work Orders List - Given an item identification, create and display the list of open work orders for the selected NIIN. Listing will include work order identification, item identification, and work order status. Display a count of open work orders. This list may be printed by print request. Input files are the AMDF File and Work Order File. Information may be retrieved on demand. The work orders listed are directly linked to the work order detail by the WON.

rr. Display Open Evacuation Case Center of Excellence (COE): Work Order List - Given an item identification, create and display the list of open evacuation cases. The list will include case and identification, repair destination, WON and current status. Display a count of open evacuation case(s). This list may be printed by print request. Input files are the AMDF File and EVAC File. Information may be retrieved on demand. The case identification numbers directly link the case(s) to the evacuation case detail.

ss. Create Local Asset Balance File - Using the ABF files from OSC, SAIL, DS4, or SARSS, create a file with records stratified by SSA NIIN. The NIIN will be by both PRIME and substitute. Data for each record will include the: RO, Quantity On Hand Serviceable, On Hand Unserviceable, Due In and Due Out, Maintenance Recoverability, Recoverability Code, MATCAT, AMDF Price, and Source Of Supply. Process runs automatically without requiring user interface and outputs a message, error or successful completion, to the user. Download the OSC file for the installation and using the AMDF file add the MR, RC, MATCAT, Unit Price, substitute NIIN cross reference, and SOS. Input files are the AMDF and ABF_OSC. The output file is the ABF.dat. Transfer the file (OSC ABF) from the ALS94, map the raw data into OSC record layout, and add the MATCAT, SOS, MR, RC, and substitute NIIN cross reference, and Unit Price. The input file is the ALS94 (OSC ABF file). The output file is the ABF.dat. Transfer the OSC ABF file from MOSAGL and map the raw data into OSC record layout and the same fields as in Spec (2). The input file is the MOSAGL (OSC ABF file). The output file is the ABF.dat. Information may be retrieved daily.

tt. Create Regional Asset Balance File - Automatically transfer ABF files from each LSMM site to the RSM and concatenate the files into a regional ABF in the same format as the local ABF without the user having to interact with the system. Input files are the ABF.dat from each LSMM. Information may be retrieved daily.

uu. Create Customized AMDF File for LSMM - Select an AMDF file of all Class VII and selected Class IX NIINs. The Class IX is for all NIINs requisitioned or stocked on an installation (ASL, Fringe, PLL, etc.). The file will contain a Prime to Substitute matching and the following data elements: MATCAT, SOS, MR, RC, Unit Price, UI, Weight, Cubic Volume, EIC, and LIN. Input files are the AMDF and NIIN.dat. The output file is the AMDF.dat. Information may be retrieved monthly.

vv. Combine LSMM AMDF Onto RSMM System - Create a regional customized AMDF that contains all the NIINs used in maintenance and supply in the region. The record will contain the same data elements as in the LSMM AMDF. The input file is the AMDF, (Concatenated NIIN.dat from each LSMM). The output file is the AMDF.dat. Information may be retrieved monthly.

ww. Create Regional CDDB File - Using the CDDB file provided by LOGSA, sum the transactions by DODAAC and NIIN for the month. The record contains the DODAAC, NIIN, PRIME, installation code, month, and net quantity ordered for the month. After the process, each DODAAC will have a unique set of NIINs. The user will be able to use the file: aggregate demands by installation for each NIIN for variable time periods; group requisitions by a PRIME NIIN for a variable time period; graph demands by month by NIIN by DODAAC or installation given a query and graphics tool. Input files are the CDDB and DODAAC. The output file is the CDDB. For each record in the CDDB, subtract the cancellations from the demands yielding net demands and display it as a signed number. Roll all requisitions with the same NIIN and DODAAC for the month, summing the "net demands" and add the record to the CDDB file. If the installation code is blank in the raw CDDB file, using the UIC/DODAAC/INST_Code table, fill in the correct code. Information may be retrieved monthly.

xx. Combine Regional CDDB Files - Transfer the EMIS CDDB file, RSMM systems and concatenate the file to create MACOM/National demand file. The user will be able to perform the same functions as the RSMM and have the capability to see demands by region or MACOM given the query and graphics tool. The input files are the CDDB File from each RSMM. The output file is the CDDB.dat. Information may be retrieved monthly.

yy. Create Standard File - The Standard file contains the average data for each NIIN /PRIME by maintenance activity based on 12 months closed work order data. Each record has FSC, NIIN, PRIME, nomenclature, the average man-hours, parts costs, direct labor cost, indirect labor cost, GAE, RCT, total cost, total qty repaired, washed out, NRTS, and NEOF, for a NIIN by specific maintenance activity. Using the EMIS Closed History file, records are filtered to eliminate work orders having no man-hours (zero). The selected work orders are aggregated and summed by Maintenance Activity and NIIN for parts costs, man-hours, labor costs, GAE, quantity repaired NRTS, washout, and NEOF. The opened and closed date in the work orders is converted to days and totaled. The total cost fields and man-hours are divided by the total quantity repaired giving the averages. The input file is the Closed History. The output file is the STANDARDS.dat. Information may be retrieved once a year or if major change occurs requiring the standard(s) to be updated (computed).

zz. Create ISM Work Orders File - Rollup work order records from maintenance systems (SAMS, MIMS, SAMS-I/TDA) into ISM standard format. Work orders will be rejected for missing start date, WON, status code, closed status code with no close date, placed in a reject file showing each record and reason(s) record was rejected. This file contains all open work orders, less those whose FSC matches the filter list and closes work orders for the last 30 days. Filter raw data file from legacy systems (MIMS, SAMS1, and AMMMIS). Input files are the MIMS (XMWO), AMMMIS (DYA01M01), and SAMS (AHN03, AHN05, AHN010). Output files are created from the WO_Good.out, Failed_Work orders, Failed_Parts, Failed_FSC. Convert status codes: ISM uses status codes outlined in DA PAM 750-1 and TM38-750-1 except for inspection. ISM record has only one status for inspection. Initial and Final are mapped to one status code. Input file is the legacy work order data file. Output file is the Wogood.out. Determine quantity NRTS, NEOF and Washed Out. For MIMS, system reads the bumper number field for the data or defaults quantity repaired as quantity received. SAM's systems status code IDs NRTS, NEOF and Washout. The input file is the XMWO. The output file is the Wogood.out.

aaa. Create ISM Workorder.dat File - Using the EMIS work order data file, create the EMIS information file adding fields from AMDF (catalogue data) and calculated fields (AGE, DIRL, INDL, and GAE). Calculate labor and GAE costs. ISM use cost map data in MA.dat file to calculate direct and indirect labor costs plus the GAE cost for each work order. Process multiple man-hours times labor costs and GAE. The input file is the Wogood.out, MA.dat, WC.dat. The output file is the Workorder.dat. Add AMDF fields to each record. The MR, RC, MATCAT, CLASS and price are added to each record. The input files are the Wogood.out and AMDF. The output file is the Workorder.dat. System calculates age of the work order using system date at time of rollup and date work

order was opened and adds the field to the record. The input file is the Wogood.out. The output file is the Workorder.dat. Information may be retrieved daily.

bbb. Create YTD Production File - At a specified date each month, roll closed work orders for Reparable by maintenance activity, PRIME, and month summing quantity repaired. The input file is the Closed_History. The output file is the YTD_Production.dat. Information may be retrieved monthly or upon demand.

ccc. Create YTD_AVG File - Same format and function as the Standards file except this uses closed work order as of the time of execution to determine values. The input file is the Closed_History.dat. The output file is the YTD_AVG.dat. Information may be retrieved on demand.

ddd. Create Monthly Performance File - Same format and function as the Standards file except data is stratified by month. This allows the user to compare against the standards file and month to month to do trend analysis. The input file is the Closed_History.dat. The output file is the Monthly_Perf.dat. Information may be retrieved monthly.

eee. Create Monthly Production File - Same function as YTD except data is for current month. Process filters closed work orders by current month and rolls data by NIIN. Process can be initiated at any time by the user that then filters closed work order data from the first of the month to current as of date. The input file is the Closed_History file. The output file is the Monthly_Production. Information may be retrieved using the monthly CRON or can be executed on demand by the user.

fff. Create COE File - File has PRIME/NIIN with COE (MA) bid information. File is created and updated through the editor. The input file is the COE.dat. The output file is the COE.dat. Information may be retrieved quarterly.

ggg. Create EVAC File - EVAC file contains transportation information and work order information from the COE and source (owning UIC). Initial case is entered through the editor. Transportation data is manually entered. Work order data updates automatically after the EVAC case number is linked to the work order by the user. File is updated in the editor. The input files are the EVAC and Work Order. The output file is the EVAC.dat. Information may be retrieved as required.

hhh. Update EVAC File - Information exchange of evacuated item between the source (owner) and COE (repairing MA) occurs automatically without user intervention. Routine parses information at each site and ftp appropriate file to each location. The input file is the EVAC. The output file is the EVAC. Information may be retrieved daily.

iii. Create Work Order History_XX File - From each daily MA rollup, work orders with a closed status are transferred to the closed history file. Record format is the same as the work_order.dat file. The input files are the Closed_History, AMDF, MA.dat, and WC.dat. The output file is the Work order_History_XX.dat (XX = FY). Information may be retrieved daily or as a rollup occurs.

jjj. Create Parts File - Create a file in EMIS showing parts requisitioned against a work order. File shows the supply status and Expected Shipping Date (ESD). Record must have WON. The input files are the MIMS (XSTS), SAMS (AHN05 and 10), AMMMIS (DYA03M04), and AMDF. The output files are the Parts_good.out, Parts.dat, and Parts_reject.out. Information may be retrieved daily.

kkk. Simple Filter - Given a field (F), a key (K)*, and one of the following relationships, the system will be able to select the data that satisfy these conditions: K could take alphanumeric values. It could also take wild card characters "?" or "*" or could be blank (see Figure 7-1)

Conditions:

(a) F < K	F Less than K
(b) F <= K	F Less than or Equal K
(c) F = K	F Equal K
(d) F >= K	F Greater than or Equal K
(e) F > K	F Greater than K
(f) F != K	F Not Equal K

Figure 7-1

Note: The inputs are the field name, key value, and relationship. Given the input, find data that satisfy the condition. The output file is the subset of the original data.

lll. Range Filter Specification - Given a field (F), two keys (K1 and K2, lower and upper bounds respectively), and one of the following conditions, the system will be able to select the data within the given range (see Figure 7-2).

Range:	
(a) K1 < F < K2	Exclusive Lower and Upper Bounds
(b) K1 <= F < K2	Inclusive Lower and Exclusive Upper Bounds
(c) K1 < F <= K2	Exclusive Lower and Inclusive Upper Bounds
(d) K1 <= F <= K2	Inclusive Lower and Upper Bounds

Figure 7-2

Note: The inputs are the field name, lower and upper bounds, and relationship. Given the input, find the data that fall within the range. The output is the A subset of the original data.

mmm. File Filter - Given a list of values for a particular field, the system finds the data for which the field's values match (inclusive) or do not match (exclusive) those in the list. The input is the field and filter files. Compare the field values with those in the list and select accordingly. The output is the subset of the original data.

nnn. Create Filter File - The system provides the capability to create filter files. The input is the filter field values. Process: Create a new file. The output is a new filter file.

ooo. Modify Filter File - The user is able to modify a filter file. The file name is modifications. Process: Update file. The output is a Modified filter file.

ppp. View Filter File - The user is able to view any filter file. The input is a file name. Process is a Display file. The output is a File display.

qqq. Delete Filter File - The user will be able to delete a filter file. The input is a File name. The process is to delete the file.

rrr. Clear Filters - The user is able to remove all filters at the same time in order to start fresh. The input is a Clear flag. The process is to remove all filters. Output is a clean slate.

sss. Generate - This function creates the three output files: Demand, Repair and Total Requirement. Apply standards on the CDDB file to generate total requirements. There is no input required. Output will be the three files.

ttt. Display List - Given the name of a list (Demand, Repair, Total or Requirement), the system will display that list. Input is the name of the list. The process is to display the list. Output will be the list.

uuu. Print - The system is able to print the currently displayed list directly. The process is to print the list. There is no input. Output will be the printed list.

vvv. Search (Key) - Given the key (NIIN and MA), the system displays the parameters and the requirements associated with that key. Check input; for valid input, display the parameters and requirements and enter a copy of the whole record in the log; for invalid input, issue error message. Inputs are the NIIN and MA. Parameters and associated RO and total requirement, in addition to a new entry in the log; error message for invalid numbers.

www. Apply (Parameters) - Given a new set of values for the parameters required in the calculation of RO and total requirement, this function outputs the result of the calculation, in addition to entering the new values in the log. Given the input, calculate the RO

and total requirement (using the formulas listed in AR 750-1, Appendix A). Also, make a new entry in the log. Inputs are the required parameter values. Output is the result of calculations and a new line in the log.

xxx. Previous/Next (Parameters) - The user is able to go back and forth between the sets of parameter values. Given the input, display the corresponding parameter set and the requirements. Also, highlight the corresponding entry in the log. Inputs are the Previous/Next parameters. Output is the set of parameter values.

yyy. Export to RG - Given the file name and destination, export the file to destination. The process is to check input for valid input, export the file to the given destination for invalid input, issue error message. Inputs are the file name and destination path. Outputs are exported file in new directory; error messages for file names in the new directory, and for the directory without appropriate write permissions.

zzz. Load - Given the file name, the system is able to load it and generate the output lists. The process is to load the requested file and create the three lists. Input is the file name. Outputs are demand, repair, and total requirements.

7-9. Work Order Status Code Mapping

Status Description	EMIS	SAMS	SAMS I/TDA	AMMMIS
Inspection	A	A,E,F	A,E,F,G,6	A,E,F,G,3,5,6
In Shop	B	B	B,2,3	B,J,0
Waiting Shop	C	C.P.I	C,I,P	C,I,2,4,9
Deferred	D	D	D	D
Reject	F	Y	Y	8
Rework	G	8	8	-
Waiting Parts	K	J,K,1	J,K,1	K,1
Lag Time	L	H,7,9	H,O,7,9	H,P,7
Evacuated	M	L,M,O	L,M,N	L,M,N,O
Waiting ECOD	Q	Q	Q	Q
Waiting Pickup	R	R	R	R
Closed	S	S,T,U,V	S,T,U,V	S,T,U,V
Canceled	Z	Z	Z	Y,Z
Washout	W	W	W	W
NRTS	X	X	X	X

NEOF	N	N	-	-

7-10. Data Element Dictionary

For complete documentation of the relationships between the functional tables in EMIS, see the current EMIS 3.0 Database Definition Handbook (May 98)

7-11. Help Desk and Problem Reporting Procedures

This function will change with the incorporation of the web-enabled "Remedy" help desk software currently being installed. Until such time as the automated help desk is operational, ISM field offices will follow these procedures when an EMIS system, technical or functional, problem is encountered (Reference enclosures 7-1 and 7-2).

a. Location and Hours of Operation - The following three offices provide EMIS system help desk support:

(1) Each RSMM is the first point of contact for assistance for the RSMMs, LSMMs, and AMMs offices. The Regional Help Desk is available during normal duty hours.

(2) Contractor's Headquarters ISM Help Desk provides support directly to MACOM and NSMM sites. Help Desk hours of operation are Monday through Friday from 0800 to 1800 hours EST.

(3) ISM program COTR in Alexandria, VA, and NSMM Office, Rock Island, IL. All EMIS system problems, technical or functional, must be submitted to the ISM COTR. ISM COTR is available Monday through Friday from 0700-1700 hours EST.

b. Functions - The help desk serves as the focal point for all operational and technical questions concerning the EMIS system. The help desk is composed of technical and functional staff personnel located in each Regional office (Regional Systems Administrator and the Senior Logistics Analyst) and at the Contractor's ISM office in McLean,VA. These staffs are equipped to provide technical or functional responses and/or solutions to EMIS problems or questions that arise during operations at each MACOM, NSMM, RSMM, LSMM, or AMM sites.

c. Procedures - If a problem with the EMIS system cannot be resolved locally, the appropriate "Help Desk" should be contacted for assistance. In priority, the methods of contacting the help desk should be, e-mail, FAX, and telephone. Regardless of the method used, the field analyst, prior to initiating the help desk process, will document all requests for assistance. The field office initiating the request must also notify the ISM COTRs of the problem and of when the problem is resolved.

(1) For the LSMM and RSMM office, the analyst requesting assistance first contacts the Regional Systems Administrator located in their RSMM office as the field representative for the Help Desk. MACOMs and NSMM should contact the Contractor's Headquarters Help Desk. The "Problem Report" form (reference Figure 7-1) will be used to submit the problem. An electronic version will be e-mailed to each site for their use. As a minimum, the originator will provide the Regional System Administrator "Help Desk" with:

(a) Name and location of the originator.

(b) Date and time of the submission.

(c) Description of the problem, error messages generated by the system, process/procedures that caused the problem. Description of system problems must be of sufficient detail to allow the Help Desk to recreate the problem.

(d) Describe the actions taken to resolve the problem.

(e) Name of the point of contact who can discuss the problem, if other than the originator.

(2) Upon receipt of the Problem Report, the Regional System Administrator will perform the following actions:

(a) Assign the problem a case number.

(b) Notify originator of receipt of message (if not telephoned in).

(c) Analyze the problem for resolution.

(d) Provide the solution within 24 hours (if applicable) along with the case number to the originator.

(e) The Problem Report will be distributed by faxing or e-mailing the report to the POC group found in Figure 7-3.

ISM COTR, ccargill@alexandria-emh1.army.mil, Fax: (703) 617-2793 INNOLOG HQ, helpdesk@innolog.com, Fax: (703) 847-8714 System Administrator, rsmbragg@rsm-emis.bragg.army.mil, Fax: (910) 396-9082 Systems Administrator, rsmhood@hood-rsmemis.army.mil, Fax: (817) 288-3827

Figure 7-3

(3) If the Regional System Administrator or Senior Logistics Analyst cannot provide a solution to the problem within 24 hours, they will annotate the problem report, forward it to the POCs above and provide the originator with a current status. The contractor's headquarters help desk will log the problem based on the copy of the e-mail. Friday morning, each Regional System Administrator will submit a report to the above POCs listing all cases and their status. Report formats will be provided under separate cover.

(4) When the problem reaches the contractor's headquarters help desk, it will be logged and assigned to either a technical or functional representative for resolution. The following actions will be performed by the contractor's headquarters help desk:

(a) An update of the issue will be provided to the originator and above POC group by the assigned help desk technical representative.

(b) The problem will be analyzed for resolution as defined in Figure 7-4.

Determine if it is a Systems Change Request (SCR) (See 3 below), Determine if the problem is the result of a bug, or Determine if the problem is the result of a system or training problem.

Figure 7-4

(5) If the problem results in a SCR, the originator will be notified to document their recommendation /request on DA Form 5005-R and submit it using those procedures to the ISM COTR, ATTN: Mr. C. Cargill, HQ AMC, AMCLG-MI, 5001 Eisenhower Ave, Alexandria, VA 22333-0001. The contractor headquarters' analyst will annotate the Problem Report and input it into the SCR process. The Problem Report will act as a suspense copy pending receipt of the DA Form 5005-R.

(6) If the problem is determined to require a bug fix, the originator will be notified, the bug will be documented, and a message will be sent to the field notifying all users of the bug, procedures on how to avoid the bug, and the proposed fix date (if known). Bug fixes (if critical) may be issued prior to the next Software Change Package (SCP) (future releases of EMIS) or may be incorporated into the next SCP. In any case, the ISM COTR must approve any changes outside the original EMIS support contract agreement.

(7) If the problem is determined to be a System problem, the solution will be applied, the Regional System Administrators will be updated and instructed to inspect the other systems in their region and correct any similar problems discovered. If the problem is a

training problem, the problem will be documented and recorded in the database for trend analysis purposes and future User Manual updates (if required). On a weekly basis, reports will be generated to identify trends that may require remedial training actions. Upon completion of any of the actions above, the case will be closed, the proper POC group will be notified, and the customer will be informed of the solution to their problem.

Enclosure 7-1 Help Desk Problem Report

==========

This Part Filled in by the Users:

==========

1. Name: _____ 2. Date: _____ 3. Person Who Called: _____

4. ISM Location: _____ 5. Problem Title: _____

6. Description of the Problem Reported:

_____

7. Steps Taken by the User Towards Resolution:

_____

==========

This Part Filled in by Regional Systems Administrator:

==========

8. Case Number:_____ 9. Date Received:_____ 10. Priority:_____

11. Date User Notified of Receipt/Case Number:_____

12. Problem Resolution:_____

13. Date Problem Resolved:_____ 14. Man-hours Expended:_____ 15. Date User Notified of Resolution:_____

16. Date Case Passed to Contractor's Headquarters Help Desk:_____

==========

This Part Filled in by Contractor's Headquarters Help Desk:

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17. Date Received:_____ 18. Received By:_____ 19. Priority:_____

20. Assigned To:_____ 21. Date Assigned:_____

22. Problem Resolution:

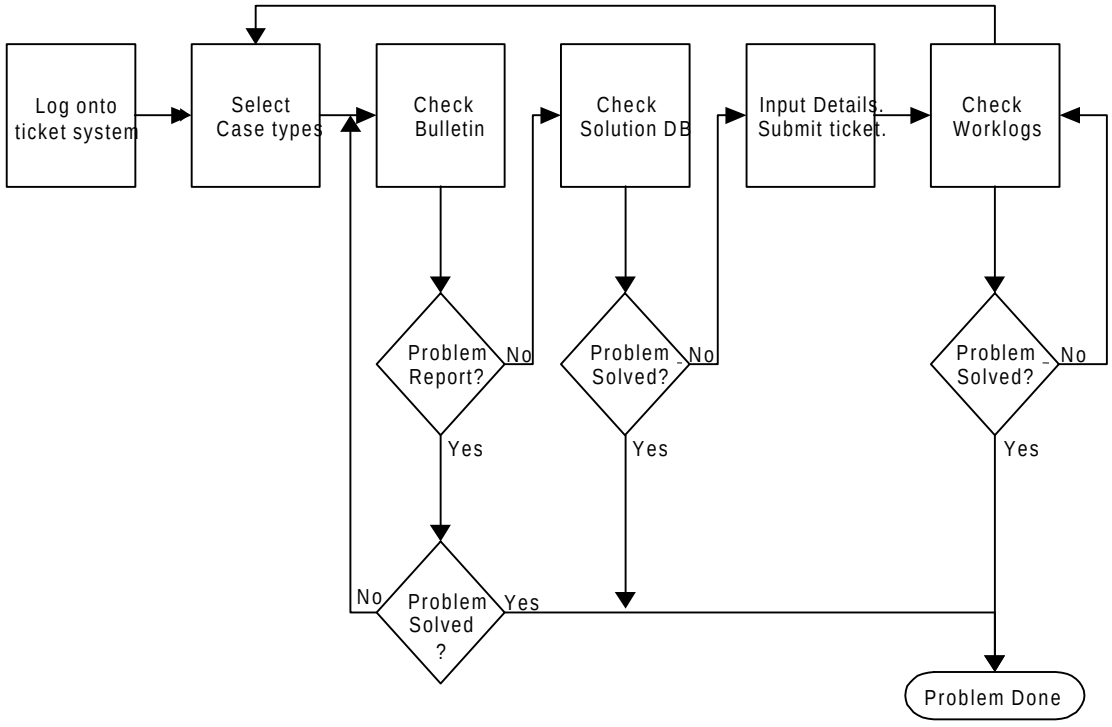
_____

23. Date Problem Resolved:_____ 24. Man-hours:_____ 25: Date User Notified:_____

26: Date Case Closed:_____

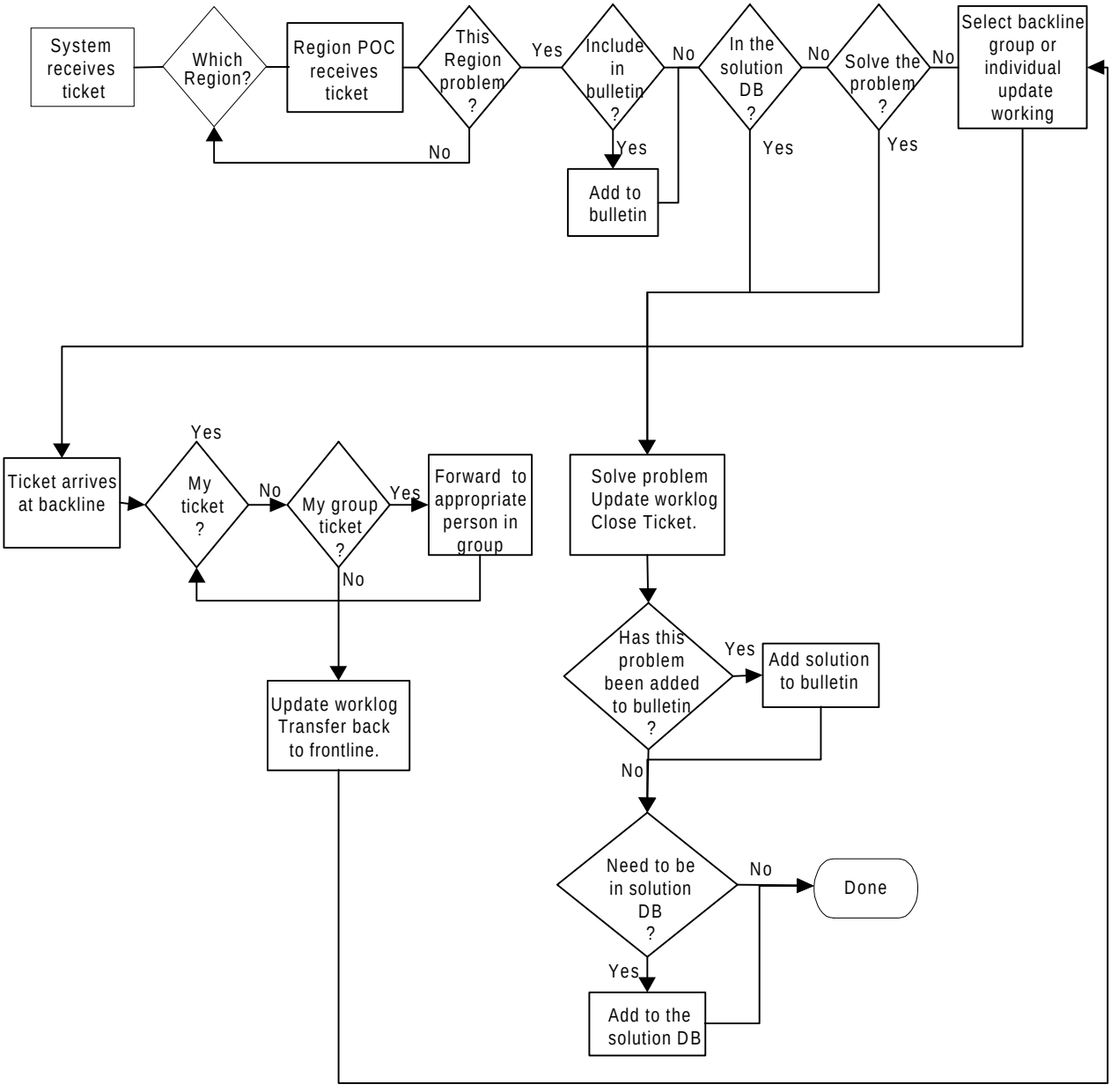
Signature:_____ (--2ea5_51d8-4b43_5018-134b_519f--)

Enclosure 7-2-1	Remedy Flow Process

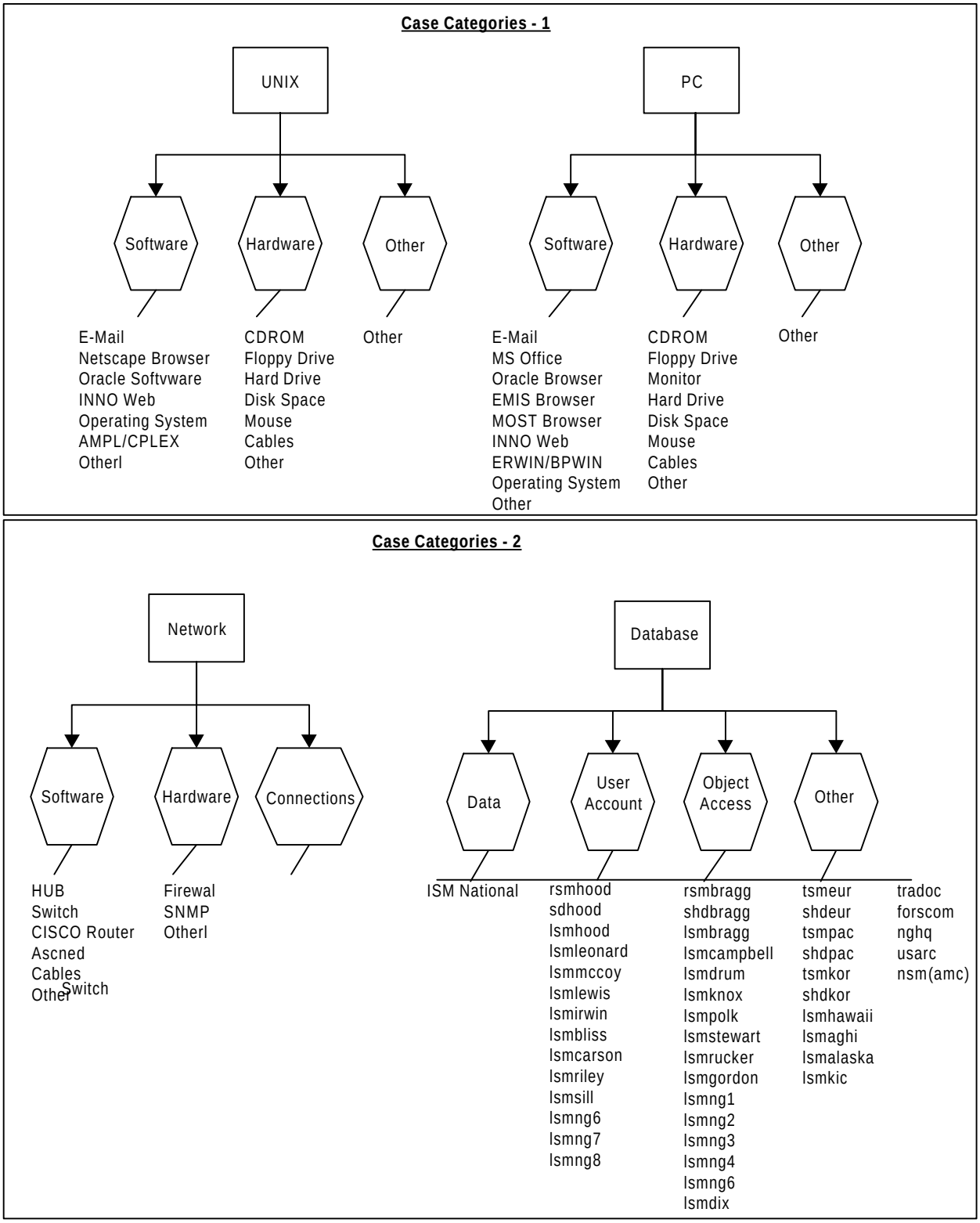


Enclosure 7-2-2	Ticket Workflow

Ticket Workflow



Enclosure 7-2-3	Categories 1 and 2



Enclosure 7-2-4	Categories 3